

# A578 K 501 - Waterproofing Solution

### PRODUCT DESCRIPTION

**K501 Waterproofing Solution** is a water based co-solvent-free water repellent based on silane-siloxane technology. The blend is designed to give excellent water repellency properties, particularly to masonry substrates.

When applied, **K501 Waterproofing Solution** penetrates into the substrate and once dried is virtually undetectable, thereby preserving the original appearance and character of the substrate.

**K501 Waterproofing Solution** can be applied by all conventional methods of coatings application and is ideal for use on brickwork, cementitious substrates, natural stones and other porous substrates. **K501 Waterproofing Solution** prevents damage to the substrate which might otherwise occur by the ingress of liquid water.

<u>NOTE:</u> **K501 Waterproofing Solution** turns the hydrophilic surface to which it is applied into an hydrophobic surface so preventing the uptake of liquid water into the substrate. It does not stop water under pressure, either due to wind pressure or where there is a head of water against the substrate, from being forced into the masonry. **K501 Waterproofing Solution** must be over-painted with a waterproofing membrane to provide the ultimate in waterproofing and weatherproofing properties.

## **FEATURES**

- · Water based (solvent free). Zero VOC.
- Once dried, the product is clear and preserves the original appearance and character of the substrate.
- Achieves early liquid water repellent properties.
- Displays early resistance to wash off by rainfall.
- Suitable for application over a wide range of temperatures.
- Suitable for most mineral substrates.
- Easily applied by conventional paint application methods.
- Allows water vapour to permeate from the underlying substrate.
- May be over-painted.

## **SUBSTRATE DATA**

**K501 Waterproofing Solution** is suitable for use on most mineral surfaces. It imparts water repellent properties by being absorbed into the surface and should therefore not be used on highly dense non-porous substrates such as engineering bricks, glazed tiles etc.

Suitable substrates include: Concrete, Cement / lime sand finishes, Brick, Rough cast or pebble dash, weathered cement based boards, natural stone etc.

## WARNING - K501 Waterproofing Solution must not come in contact with glass

## **PREPARATION**

Before application, the surface should be free of all forms of contamination such as dirt, grease, oil, algae, lichen, loose and flaking material.

Removal of contaminants may be achieved by any suitable method including high pressure water blasting. Any residual organic growth should be treated with an application of **A924 Mould Kill X200**.

Any obvious cracks or defective joints must be made good prior to treatment with **K501 Waterproofing Solution**, otherwise rain penetration may subsequently occur at these points. Hairline cracks which are stable do not require any form of repair.

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### **APPLICATION**

Before application of **K501 Waterproofing Solution** any excessive dampness in the surface should be allowed to dry out, otherwise penetration may be affected. Ideally the moisture content of the substrate must not exceed 25% wood moisture equivalent.

**K501 Waterproofing Solution** should be applied freely by brush or spray. Apply two coats of **K501 Waterproofing Solution** liberally by spray or brush. Coverage of **K501 Waterproofing Solution** will depend upon the substrate absorbency. The second coat should be applied immediately after the first coat has been absorbed, or up to 24 hours after if delay cannot be avoided.

K501 Waterproofing Solution should be applied at temperatures between 3°C and 35°C.

## **COVERAGE RATES**

	Application Rate/m²	Application Rate/L
1 <sup>st</sup> Coat	0.13 - 0.17 L	6-8m <sup>2</sup>
2 <sup>nd</sup> Coat	0.13 - 0.17 L	6-8m <sup>2</sup>
Overall	0.25 - 0.33 L	3-4m <sup>2</sup>

Note: A greater quantity of **K501 Waterproofing Solution** may be required on the first coat, with a corresponding reduction in the second coat to give the Overall application rate outlined in the table above. Highly absorbent substrates will require the application of greater quantities of **K501 Waterproofing Solution**.

Depth of penetration will vary depending upon the absorbency of the substrate and the quantity of **K501 Waterproofing Solution** applied.

## **PERFORMANCE**

**K501 Waterproofing Solution** can become resistant to wash off by rain as soon as 1 hour after application. Full water repellency properties are generally achieved after 24 hours.

K501 Waterproofing Solution achieves maximum water beading effect only after first rainfall.

**K501 Waterproofing Solution** provides water repellency properties by penetrating into the substrate and curing to form a hydrophobic layer lining the pores. This hydrophobic layer does not allow the ingress of liquid water, however, it will still allow the passage of water vapour therefore allowing the substrate to dry out.

Application of **K501 Waterproofing Solution** can prevent damage of the substrates to which it is applied by ensuring that the substrate does not absorb liquid water. This will prevent, for example, the problems which occur when water within substrates freezes and expands causing cracking and spalling of concrete.

An application of **K501 Waterproofing Solution** will also prevent damage caused by waterborne pollutants such as acid rain.

# **TEST DATA (TYPICAL VALUES)**

Depth of penetration; Red facing brick - circa 1mm White concrete brick - circa 3mm

## WATERPROOFING

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**K501 Waterproofing Solution** applied to Tachboard, 6cm head of water, 24hrs cure. Water absorbed = 0.25cm³/cm² Control ≥ 6cm³/cm²

Note: **K501 Waterproofing Solution** is not intended for use where a hydrostatic head of water is present. The test is to indicate the relative aspects of treated and untreated absorbent board in a 'worst case' situation.

## **ACCELERATED WEATHERING**

3000 hour exposure to QUV in accordance with ASTM G53-88: No loss of performance.

#### **MAINTENANCE**

Periodic re-coating of the substrate will be required to maintain water repellency. This is envisaged to be necessary at 10 year intervals.

### **APPLICATION EQUIPMENT**

**K501 Waterproofing Solution** is best applied by low pressure spray equipment, e.g. air spray, or a wide soft nylon or bristle brush.

## **GENERAL TECHNICAL DATA**

Appearance: Milky white S.G.: Approx. 1.0 pH: Approx 7.5

Drying times: Visibly dry at 15mins - 30mins.

Water repellent after 1 hour.

Flash point: Not applicable (water based).

Shelf life: 24 months in the original unopened container.

Storage temperature 5°C to 30°C

Do not allow to freeze.

## **CONTAINER SIZES**

4L, 20L

## **IMPORTANT NOTES**

- · Do not apply if rain is imminent.
- Do not apply if the temperature is below 3°C or at or below dew point.
- Do not dilute.
- If efflorescence is present, expert advice should be sought before treatment.
- Shake well before use.

## **SAFETY DATA**

A comprehensive Material Safety Data Sheet is available on request.

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